



### Claims in Amended Form

1. (Currently Amended) An apparatus for measuring blood platelet contractility, comprising:
  - a spherical rigid chamber having
    - an opening in its upper aspect;
  - a smaller, spherical, flexible membrane chamber, coated on its outer surface with a suitable adhesive to prevent slippage of a clot forming on said surface, placed within, concentrically and isolated from the rigid chamber, creating a void space between [the] walls of the rigid and flexible chambers and having
    - an opening in its upper aspect smaller than and coaxial to the opening in the rigid chamber and
  - a first, attached contiguous tubular passage leading out of the flexible chamber concentrically and axially through the opening in the rigid chamber, creating a void space that is isolated from the void space of the flexible inner chamber;
  - a two-way valve attached to the distal end of the tubular passage;
  - a second tubular passage connected to the valve at one end and in perpendicular axis to the first passage; and
  - a pressure transducer connected to the other end of the second passagewherein any force exerted on the flexible membrane chamber to alter its diameter would be measured by the pressure transducer.
2. (Currently Amended) The apparatus according to claim 1, wherein the flexible membrane chamber is latex.
3. (Currently Amended) An apparatus for measuring blood platelet contractility, comprising:
  - a spherical rigid chamber having
    - an opening in its upper aspect;
  - a smaller, spherical, flexible membrane chamber, coated on its outer surface with a suitable adhesive to prevent slippage of a clot forming on said surface, placed within, concentrically and isolated from the rigid chamber creating a void space between the

walls of the rigid and flexible chambers and having

an opening in its upper aspect smaller than and coaxial to the opening in the rigid chamber and

a tubular chamber leading out of the flexible membrane chamber concentrically and in perpendicular axis through the opening in the rigid chamber, having

both ends sealed creating a void space that is isolated from the void space of the flexible inner chamber; and

a glass capillary tubing coaxial to and longer than the tubular chamber, passing through both ends of the sealed tubular chamber, creating a continuous passage from outside of the apparatus to the void space of the inner flexible membrane chamber.

4. (Original) The apparatus according to claim 3, wherein the distal opening of the capillary tubing is plugged.

5. (Currently Amended) The apparatus according to claim 4, wherein the capillary tubing plug is removable.

6. (Currently Amended) The apparatus according to claim 4, wherein the capillary tubing extending outside of the tubular chamber is scored to facilitate a clean break.

7. (Currently Amended) An automated system for measuring blood platelet contractility of a plurality of samples, comprising:

an array of retractometer units, each of which is

a separate apparatus for measuring blood platelet contractility, comprising:

a spherical rigid chamber having

an opening in its upper aspect;

a smaller, spherical, flexible membrane chamber, coated on its outer surface with a suitable adhesive to prevent slippage of a clot forming on said surface, placed concentrically within the rigid chamber creating a void space between the walls of the rigid and flexible chambers and having

an opening in its upper aspect smaller than and coaxial to

the opening in the rigid chamber and  
a first, attached contiguous tubular passage leading out of the flexible membrane chamber concentrically and in perpendicular axis through the opening in the rigid chamber, creating a void space that is isolated from the void space of the flexible membrane inner chamber;  
a two-way valve attached to the distal end of the tubular passage;  
a second tubular passage connected to the valve at one end and in perpendicular axis to the first passage; and  
a common pressure transducer connected to the other end of the second passage of each separate retractometer  
wherein any force exerted on the flexible membrane chamber of each retractometer to alter its diameter would be measured by the common pressure transducer.

8. (Currently Amended) An apparatus for measuring blood platelet contractility, comprising:

a spherical rigid chamber having  
an opening in its upper aspect;  
a smaller, spherical, flexible membrane chamber, coated on its outer surface with a suitable adhesive to prevent slippage of a clot forming on said surface, placed within, concentrically and isolated from the rigid chamber, creating a void space between [the] walls of the rigid and flexible chambers and having  
an opening in its upper aspect smaller than and coaxial to the opening in the rigid chamber and  
a first, attached contiguous tubular passage leading out of the flexible chamber concentrically and axially through the opening in the rigid chamber, creating a void space that is isolated from the void space of the flexible inner chamber;  
a two-way valve attached to the distal end of the tubular passage;  
a second tubular passage connected to the valve at one end and in perpendicular axis to the first passage; and  
a pressure transducer connected to the other end of the second passage

wherein any force exerted on the flexible membrane chamber to alter its diameter would be measured by the pressure transducer.

9. (Currently Amended) The apparatus according to claim 1, wherein the flexible membrane chamber is latex.

10. Canceled

11. Canceled

12. Canceled

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20. Canceled

21. Canceled

22. (Added) The apparatus according to claim 1, wherein the outer surface of the flexible membrane chamber is coated with bovine collagen Type I.



## Claims in Plain Text Form

1. (Currently Amended) An apparatus for measuring blood platelet contractility, comprising:
  - a spherical rigid chamber having
    - an opening in its upper aspect;
  - a smaller, spherical, flexible membrane chamber, coated on its outer surface with a suitable adhesive to prevent slippage of a clot forming on said surface, placed within, concentrically and isolated from the rigid chamber, creating a void space between walls of the rigid and flexible chambers and having
    - an opening in its upper aspect smaller than and coaxial to the opening in the rigid chamber and
  - a first, attached contiguous tubular passage leading out of the flexible chamber concentrically and axially through the opening in the rigid chamber, creating a void space that is isolated from the void space of the flexible inner chamber;
  - a two-way valve attached to the distal end of the tubular passage;
  - a second tubular passage connected to the valve at one end and in perpendicular axis to the first passage; and
  - a pressure transducer connected to the other end of the second passagewherein any force exerted on the flexible membrane chamber to alter its diameter would be measured by the pressure transducer.
2. (Currently Amended) The apparatus according to claim 1, wherein the flexible membrane chamber is latex.
3. (Currently Amended) An apparatus for measuring blood platelet contractility, comprising:
  - a spherical rigid chamber having
    - an opening in its upper aspect;
  - a smaller, spherical, flexible membrane chamber, coated on its outer surface with a suitable adhesive to prevent slippage of a clot forming on said surface, placed within, concentrically and isolated from the rigid chamber creating a void space between the

walls of the rigid and flexible chambers and having

an opening in its upper aspect smaller than and coaxial to the opening in the rigid chamber and

a tubular chamber leading out of the flexible membrane chamber concentrically and in perpendicular axis through the opening in the rigid chamber, having

both ends sealed creating a void space that is isolated from the void space of the flexible inner chamber; and

a glass capillary tubing coaxial to and longer than the tubular chamber, passing through both ends of the sealed tubular chamber, creating a continuous passage from outside of the apparatus to the void space of the inner flexible membrane chamber.

4. (Original) The apparatus according to claim 3, wherein the distal opening of the capillary tubing is plugged.

5. (Currently Amended) The apparatus according to claim 4, wherein the capillary tubing plug is removable.

6. (Currently Amended) The apparatus according to claim 4, wherein the capillary tubing extending outside of the tubular chamber is scored to facilitate a clean break.

7. (Currently Amended) An automated system for measuring blood platelet contractility of a plurality of samples, comprising:

an array of retractometer units, each of which is

a separate apparatus for measuring blood platelet contractility, comprising:

a spherical rigid chamber having

an opening in its upper aspect;

a smaller, spherical, flexible membrane chamber, coated on its outer surface with a suitable adhesive to prevent slippage of a clot forming on said surface, placed concentrically within the rigid chamber creating a void space between the walls of the rigid and flexible chambers and having

an opening in its upper aspect smaller than and coaxial to

the opening in the rigid chamber and  
a first, attached contiguous tubular passage leading out of the flexible membrane chamber concentrically and in perpendicular axis through the opening in the rigid chamber, creating a void space that is isolated from the void space of the flexible membrane inner chamber;  
a two-way valve attached to the distal end of the tubular passage;  
a second tubular passage connected to the valve at one end and in perpendicular axis to the first passage; and  
a common pressure transducer connected to the other end of the second passage of each separate retractometer  
wherein any force exerted on the flexible membrane chamber of each retractometer to alter its diameter would be measured by the common pressure transducer.

8. (Amended) An apparatus for measuring blood platelet contractility, comprising:  
a spherical rigid chamber having  
an opening in its upper aspect;  
a smaller, spherical, flexible membrane chamber, coated on its outer surface with a suitable adhesive to prevent slippage of a clot forming on said surface, placed within, concentrically and isolated from the rigid chamber, creating a void space between walls of the rigid and flexible chambers and having  
an opening in its upper aspect smaller than and coaxial to the opening in the rigid chamber and  
a first, attached contiguous tubular passage leading out of the flexible chamber concentrically and axially through the opening in the rigid chamber, creating a void space that is isolated from the void space of the flexible inner chamber;  
a two-way valve attached to the distal end of the tubular passage;  
a second tubular passage connected to the valve at one end and in perpendicular axis to the first passage; and  
a pressure transducer connected to the other end of the second passage  
wherein any force exerted on the flexible membrane chamber to alter its diameter would

be measured by the pressure transducer.

9. (Amended) The apparatus according to claim 1, wherein the flexible membrane chamber is latex.

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Added) The apparatus according to claim 1, wherein the outer surface of the flexible membrane chamber is coated with bovine collagen Type I.